

Fig. 1 PRIOR ART

FIG. 2 is a cross-sectional view of a semiconductor device in accordance with the present invention. The device includes a substrate 43, 44, a gate stack 51, and a channel layer 53. The gate stack 51 is formed on the substrate 43, 44 and includes a gate dielectric layer 51 and a gate conductive layer 53. The channel layer 53 is formed on the gate stack 51 and includes a channel layer 53. The device is formed on a substrate 43, 44 and includes a gate stack 51 and a channel layer 53. The gate stack 51 is formed on the substrate 43, 44 and includes a gate dielectric layer 51 and a gate conductive layer 53. The channel layer 53 is formed on the gate stack 51 and includes a channel layer 53.

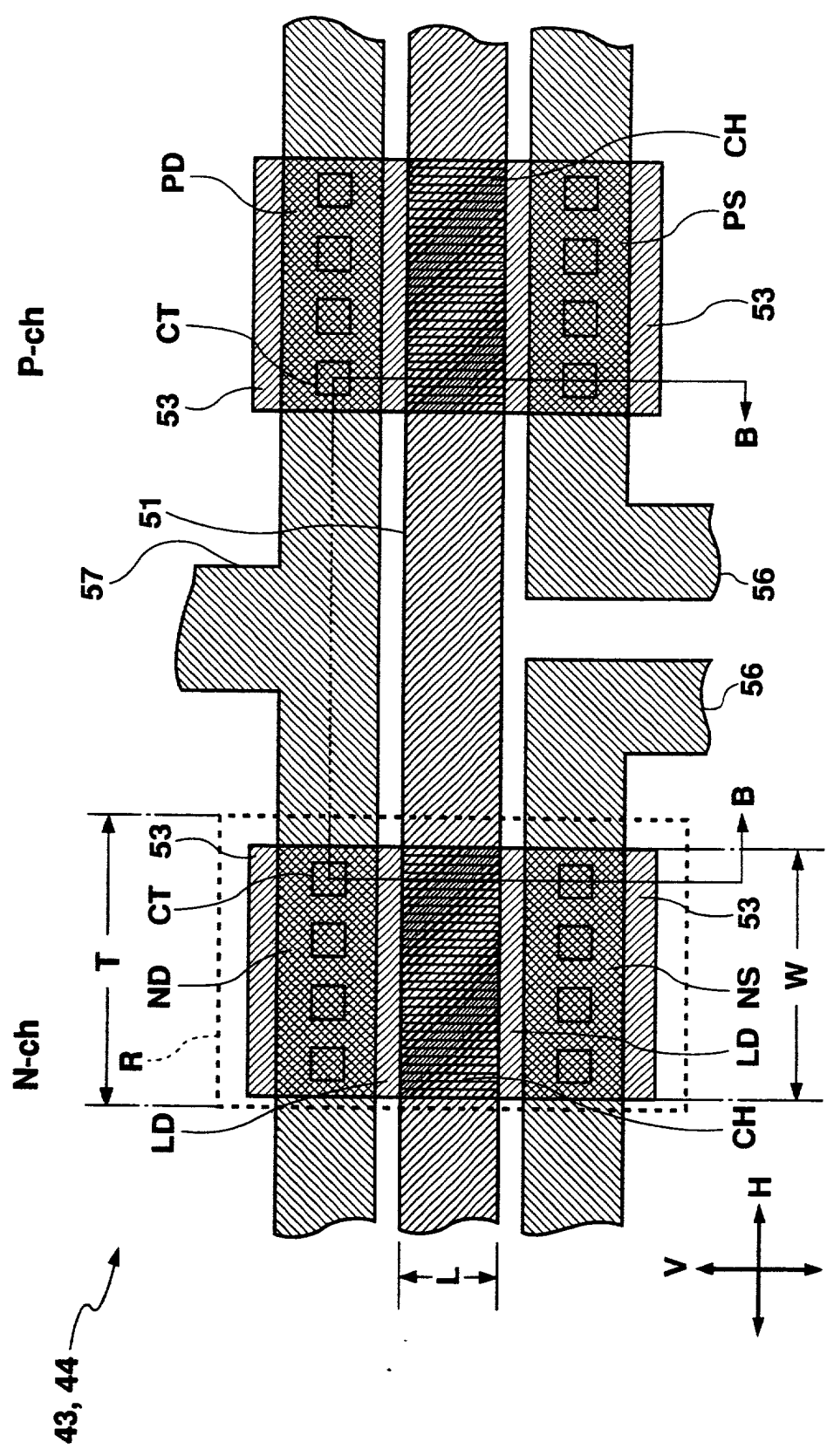


Fig. 2 RELATED ART

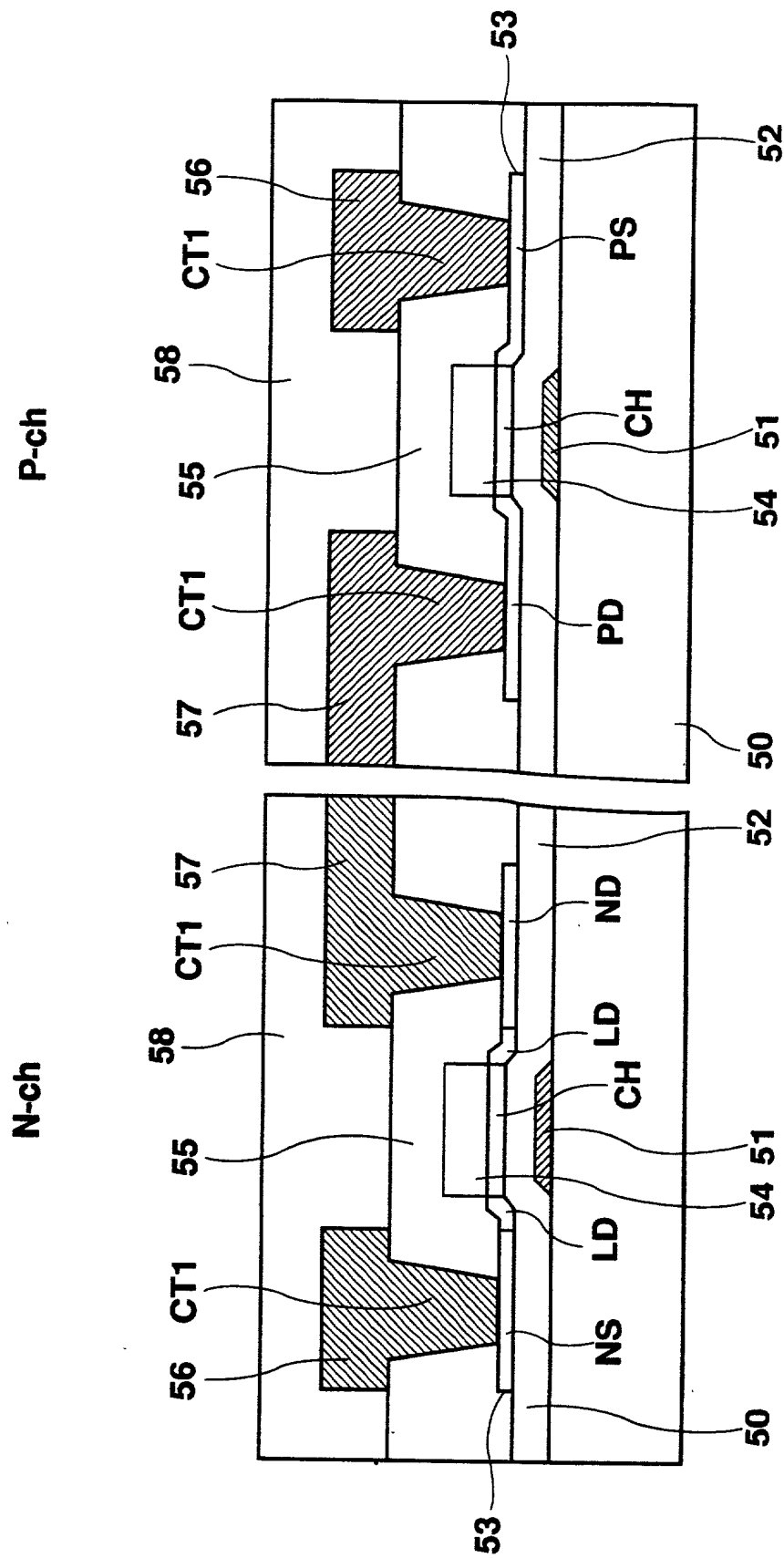


Fig. 3 RELATED ART

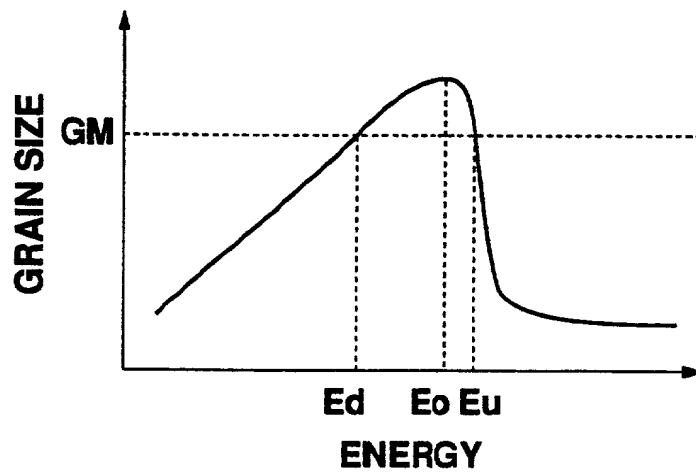


Fig. 4

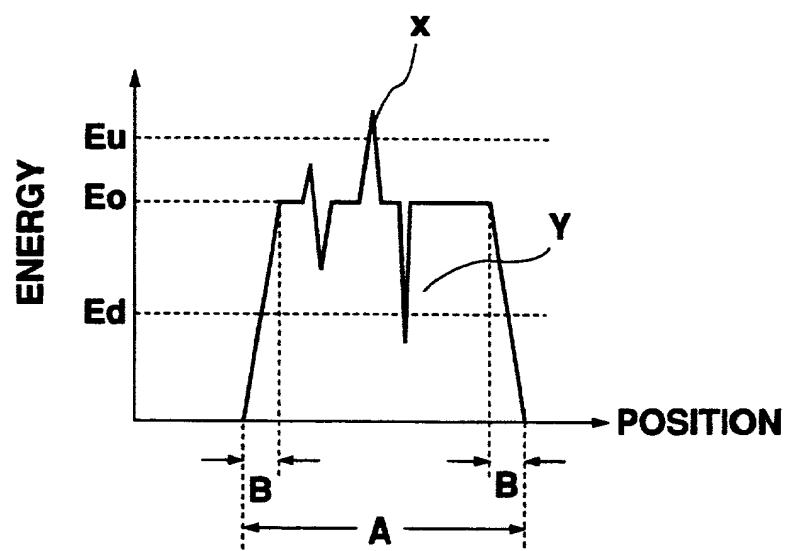


Fig. 5

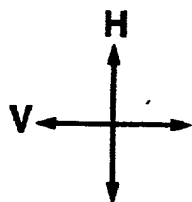
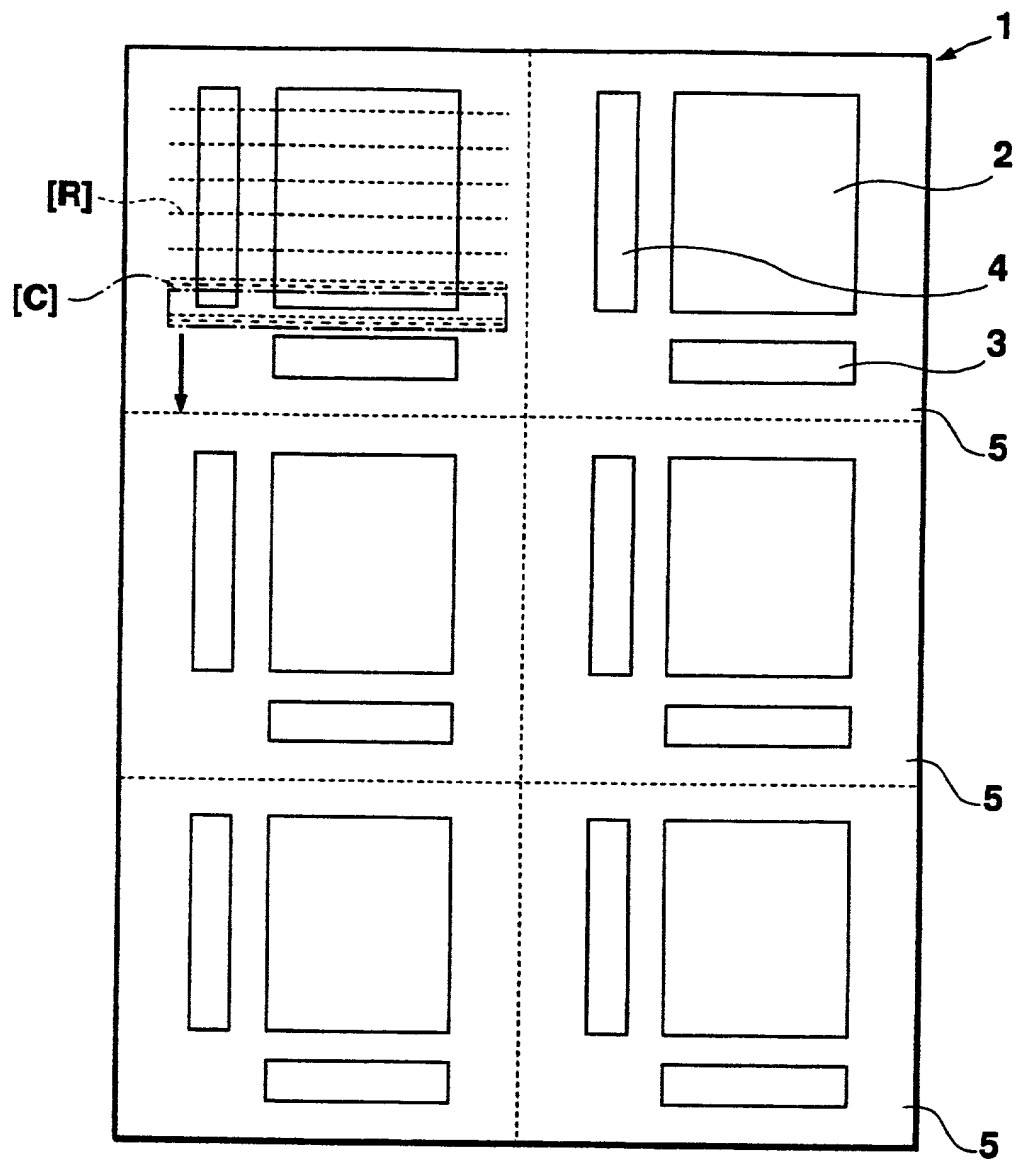


Fig. 6

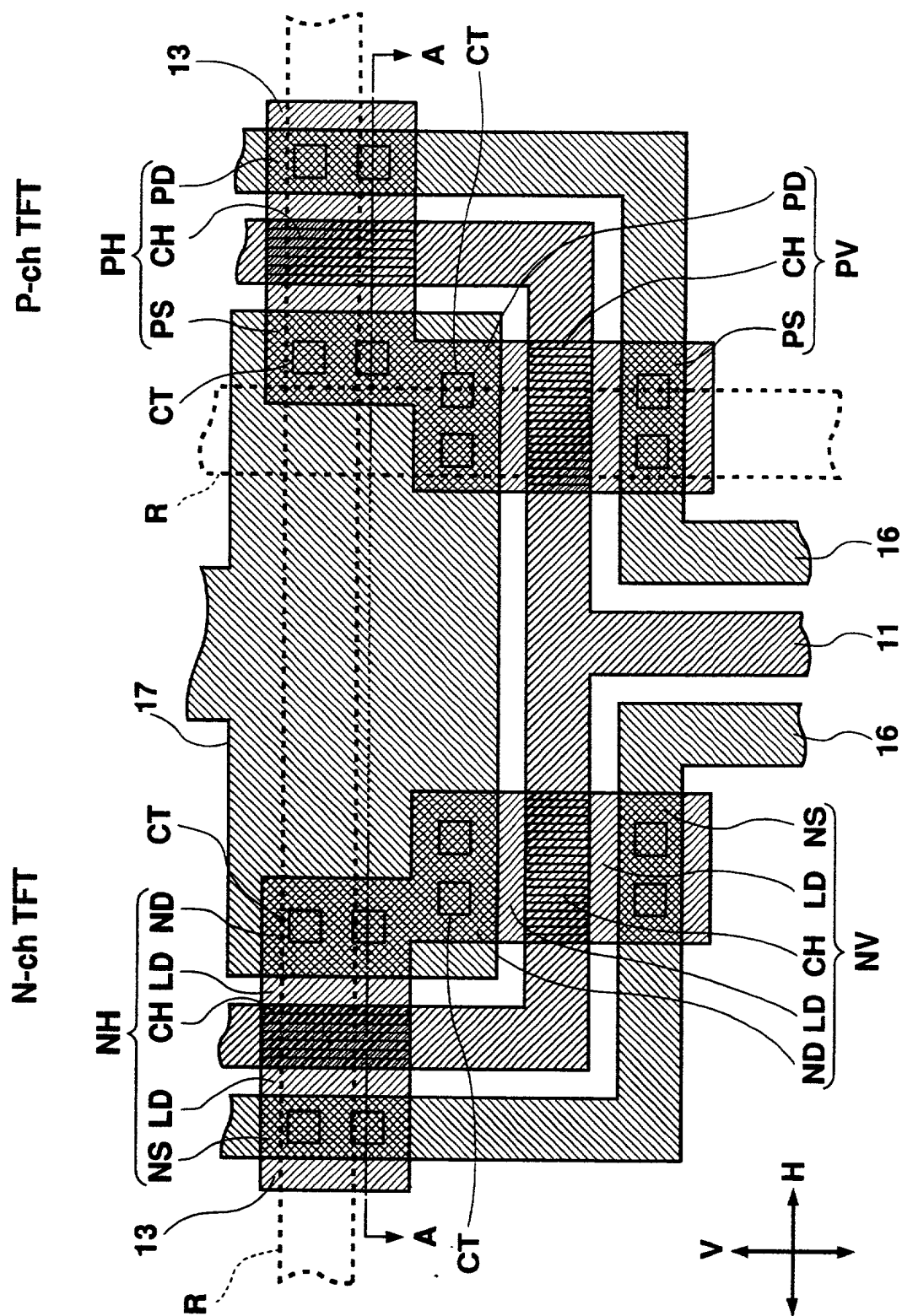


Fig. 7

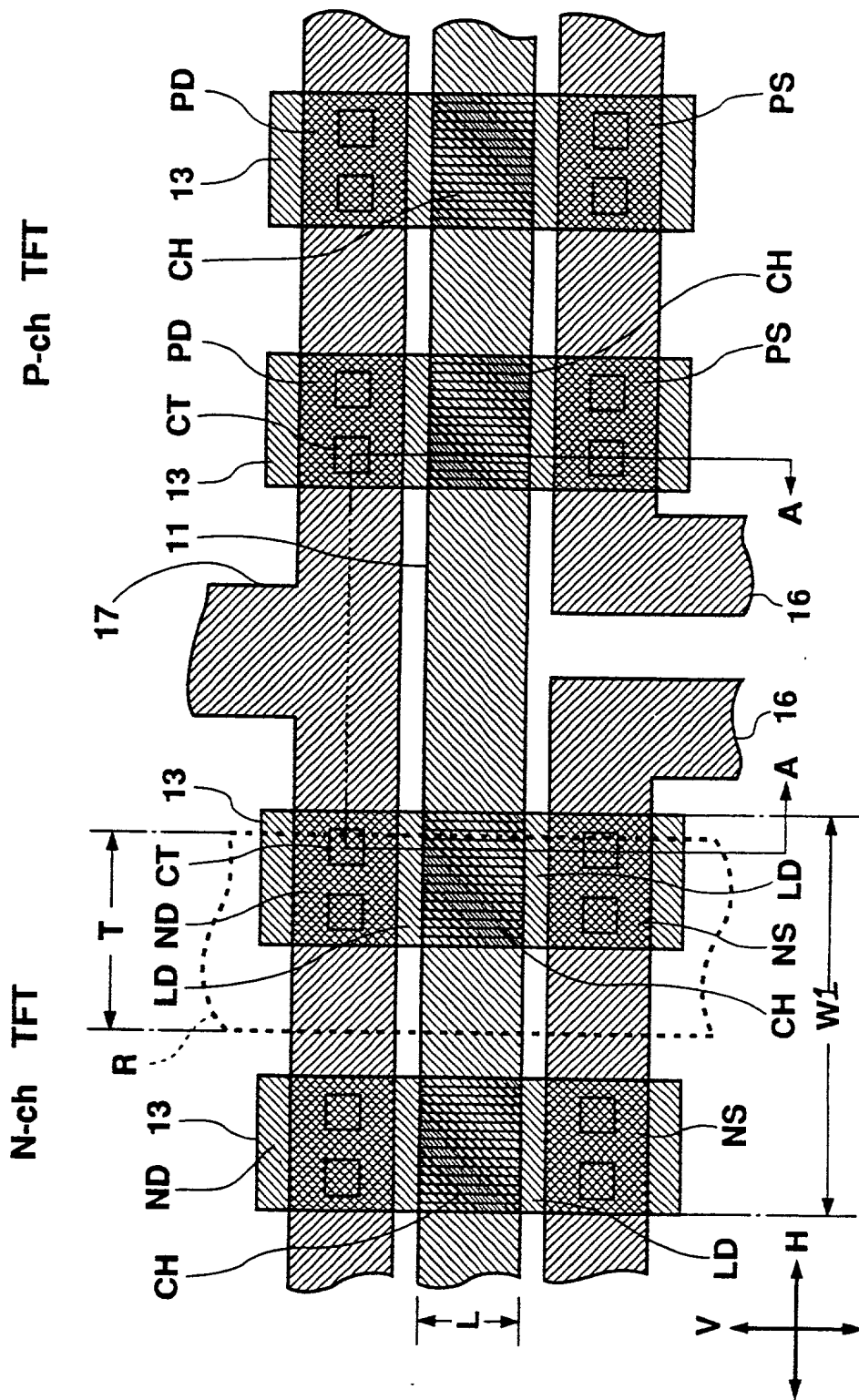


Fig. 8

N-ch

P-ch

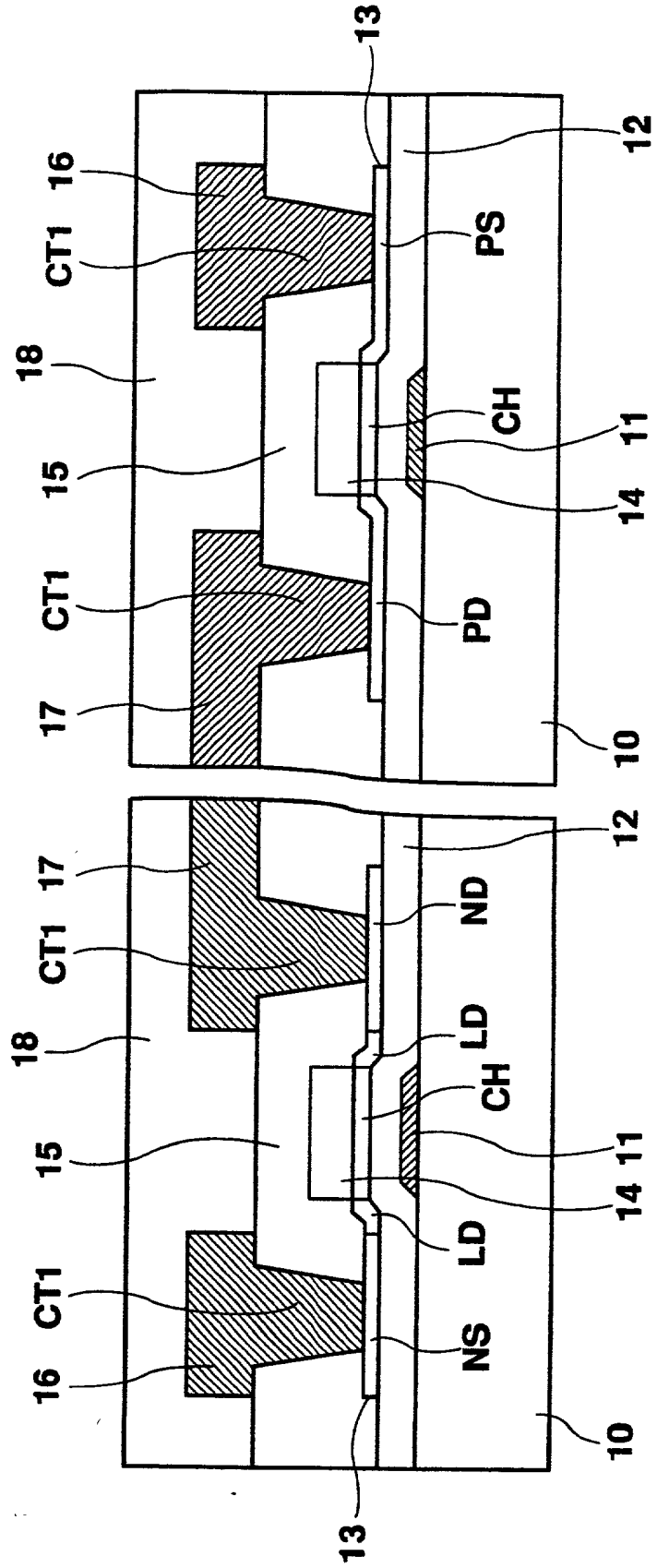


Fig. 9

FIG. 10 is a schematic diagram of a semiconductor device in a cross-sectional view. The device includes a substrate 10, a first channel region 11, and a second channel region 11. The first channel region 11 is located on the left side of the substrate 10, and the second channel region 11 is located on the right side of the substrate 10. The substrate 10 is a P-type semiconductor, and the channel regions 11 are N-type semiconductor regions. The channel regions 11 are formed by implanting N-type dopants into the substrate 10. The channel regions 11 are separated by a gate oxide layer 12. The gate oxide layer 12 is a thin layer of oxide that covers the top surface of the substrate 10 and the channel regions 11. The gate oxide layer 12 is formed by thermal oxidation of the substrate 10. The channel regions 11 are used to form a transistor. The transistor is formed by the channel regions 11, the gate oxide layer 12, and a gate electrode 13. The gate electrode 13 is a conductive layer that is deposited on top of the gate oxide layer 12. The gate electrode 13 is used to control the flow of current through the channel regions 11. The transistor is used to amplify signals and switch current. The transistor is a key component of many electronic devices, including computers, smartphones, and cameras. The transistor is a small, solid-state device that is made of semiconductor materials. The transistor is a type of electronic device that can amplify signals and switch current. The transistor is a key component of many electronic devices, including computers, smartphones, and cameras. The transistor is a small, solid-state device that is made of semiconductor materials. The transistor is a type of electronic device that can amplify signals and switch current.

N-ch

P-ch

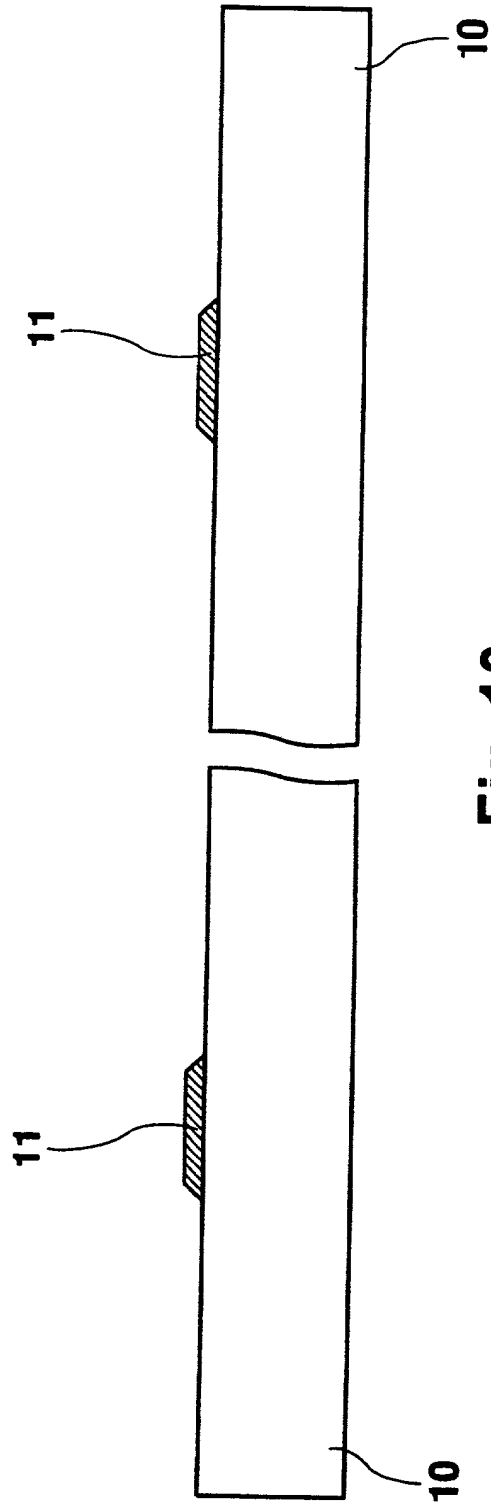


Fig. 10

FIG. 11 is a cross-sectional view of a semiconductor device in a second embodiment of the present invention.

N-ch

P-ch

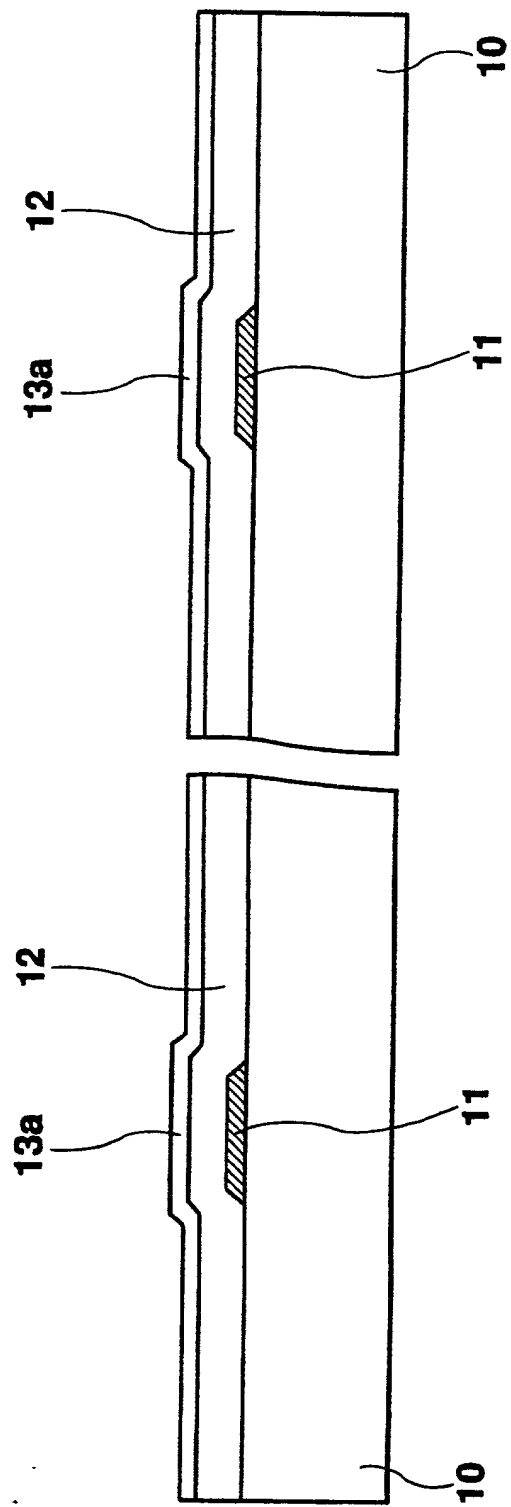


Fig. 11

N-ch

P-ch

ELA

ELA

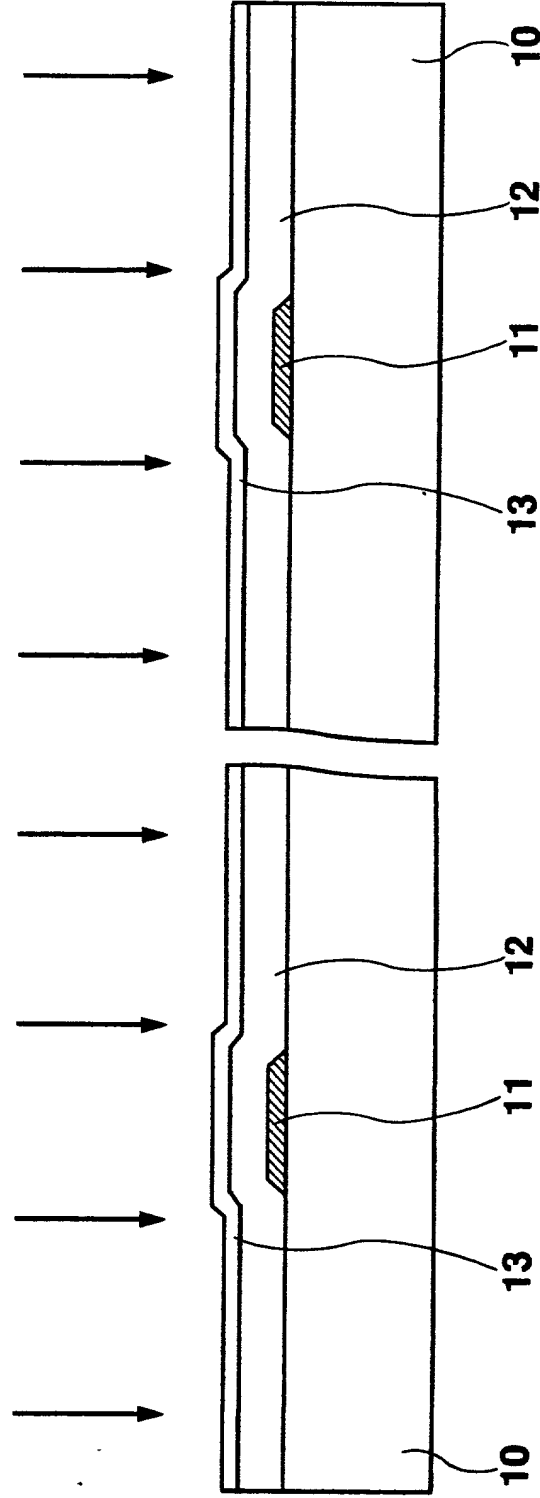


Fig. 12

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

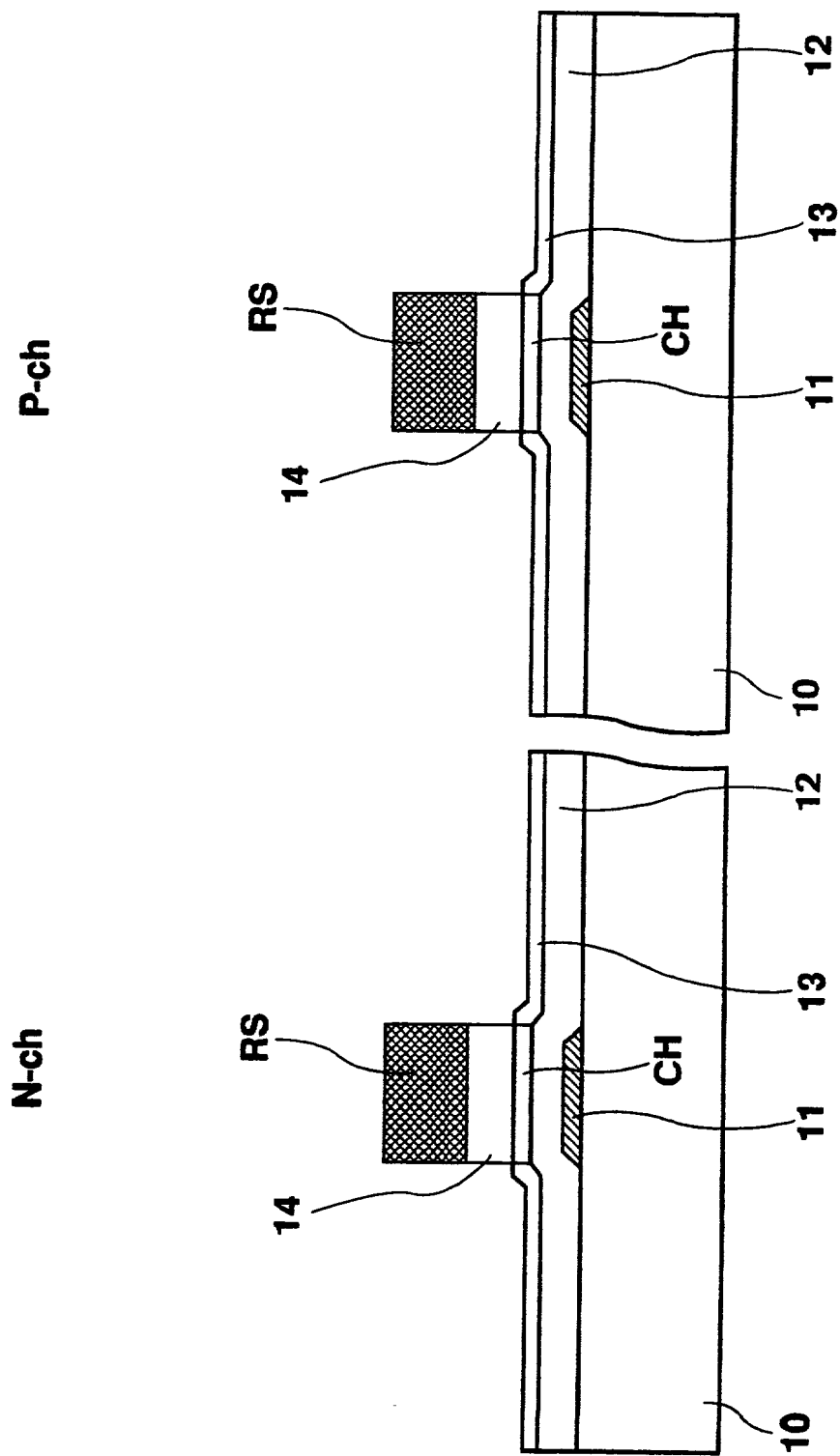


Fig. 13

N-ch

P-ch

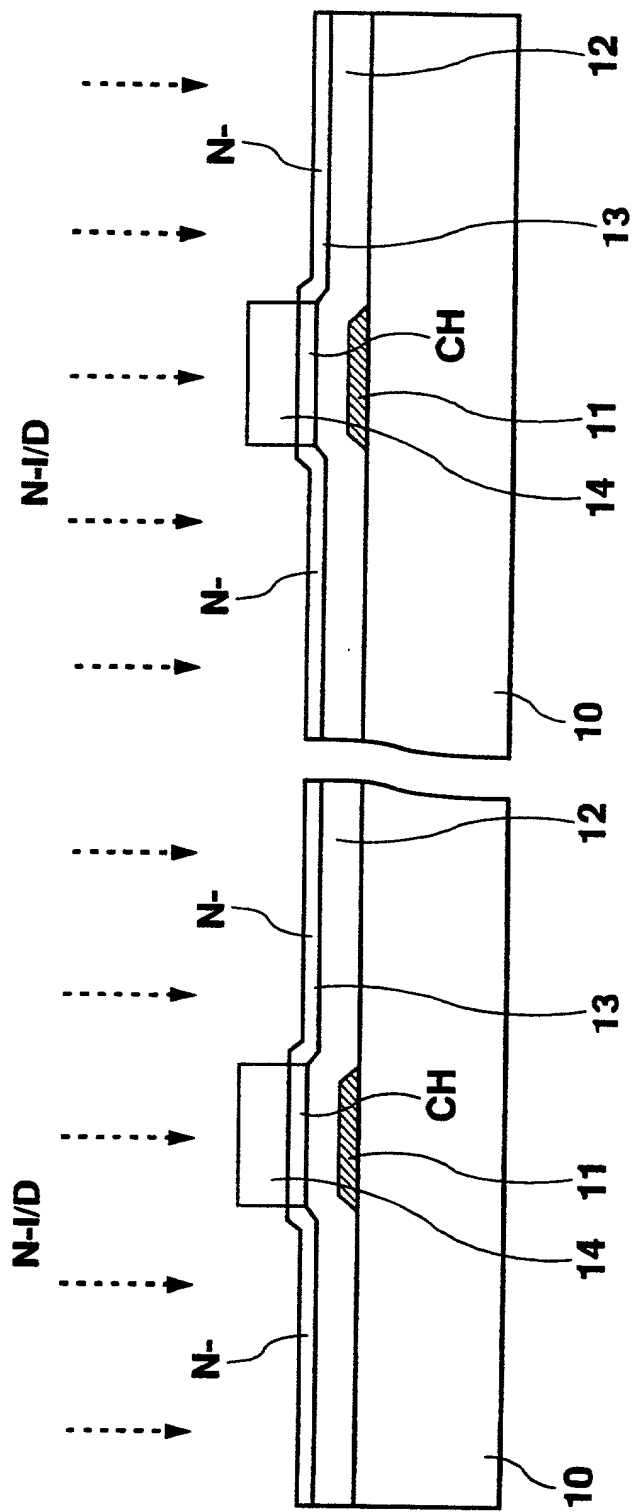


Fig. 14

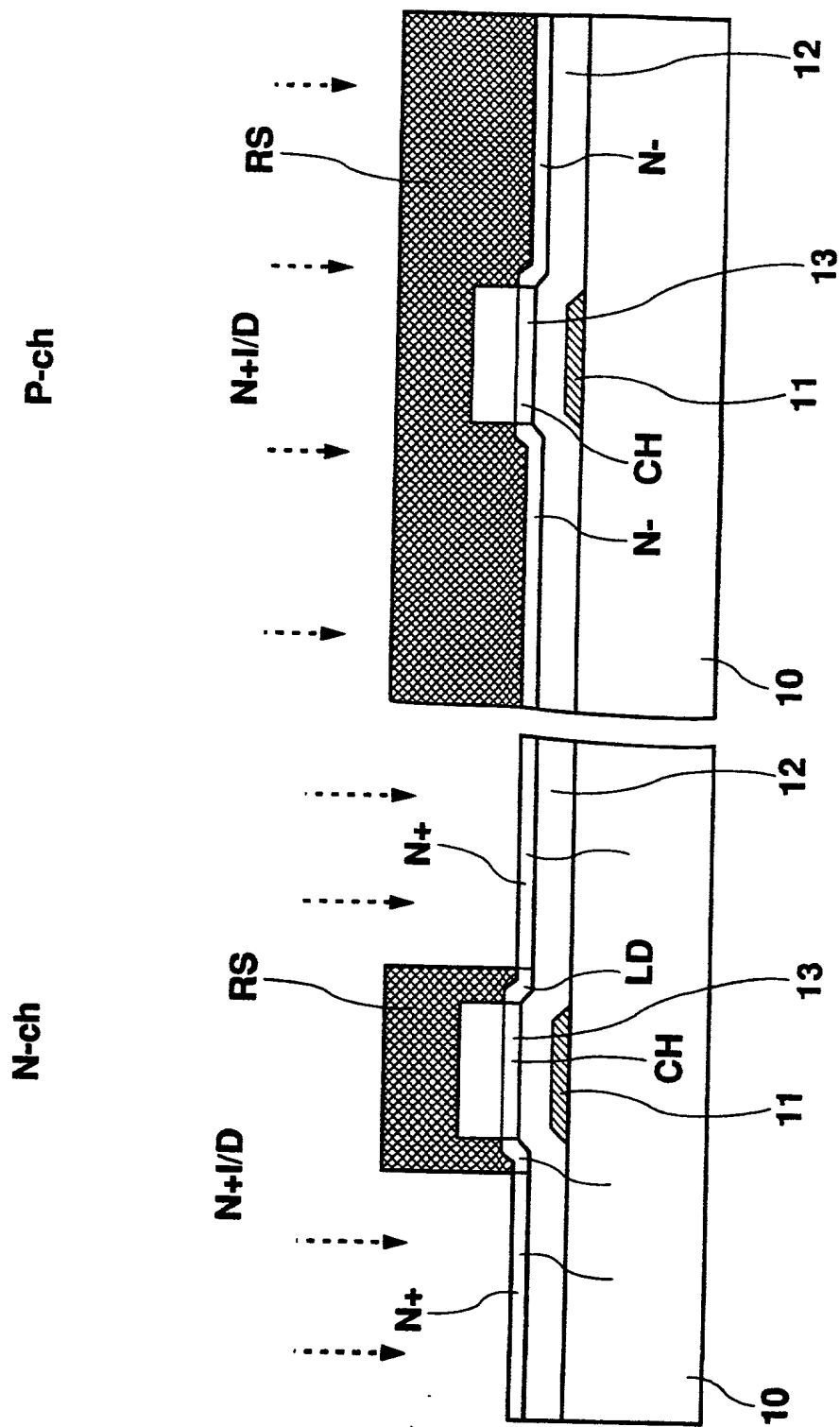


Fig. 15

N-ch

P-ch

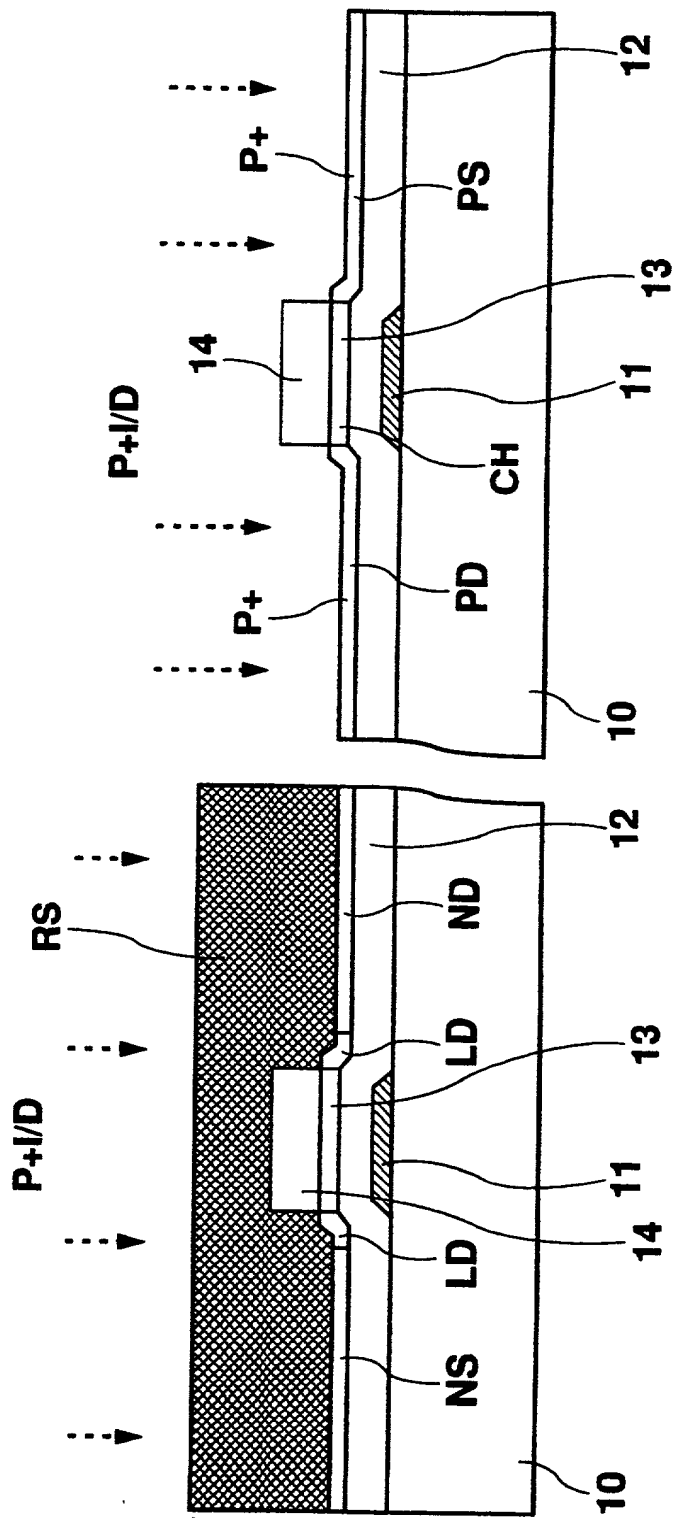


Fig. 16

P-ch

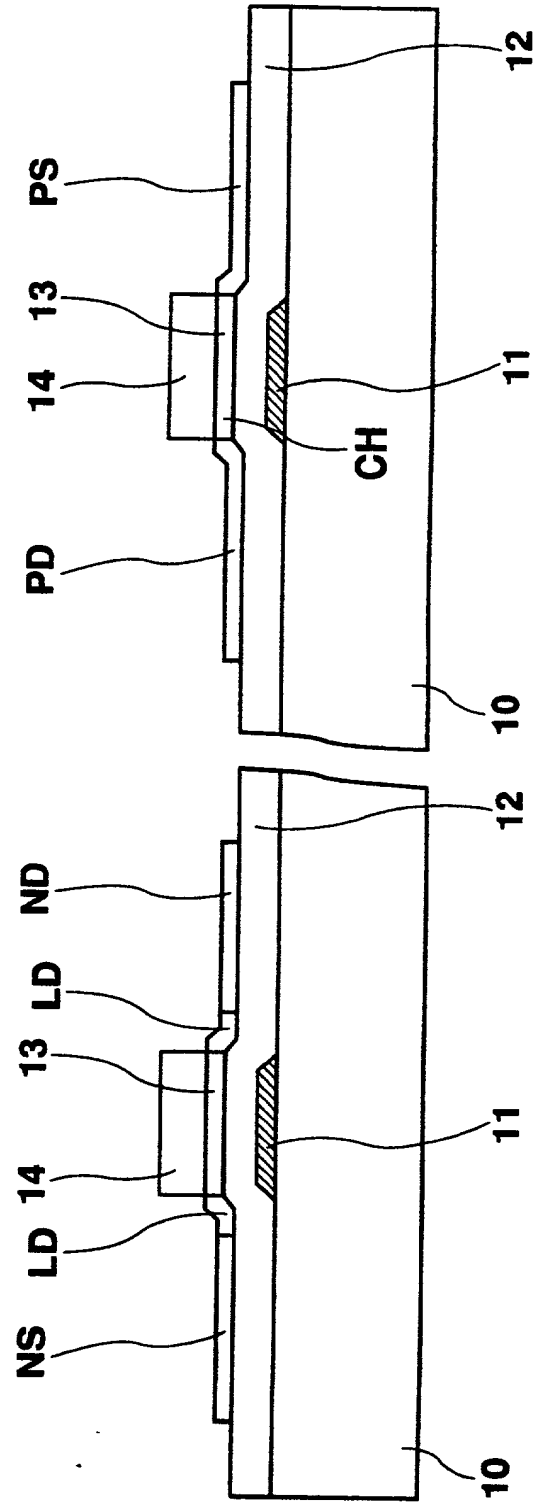


Fig. 17

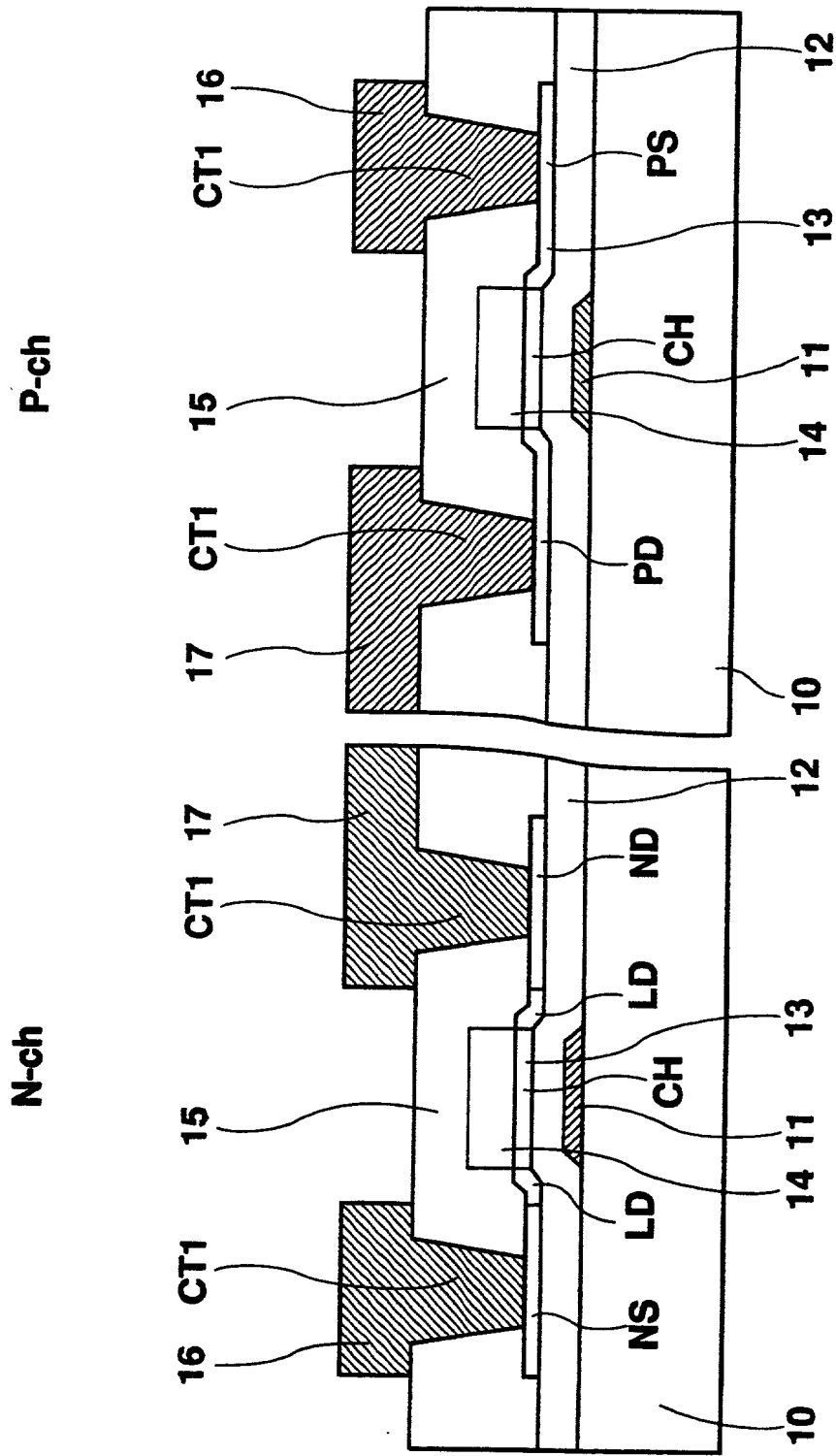


Fig. 18

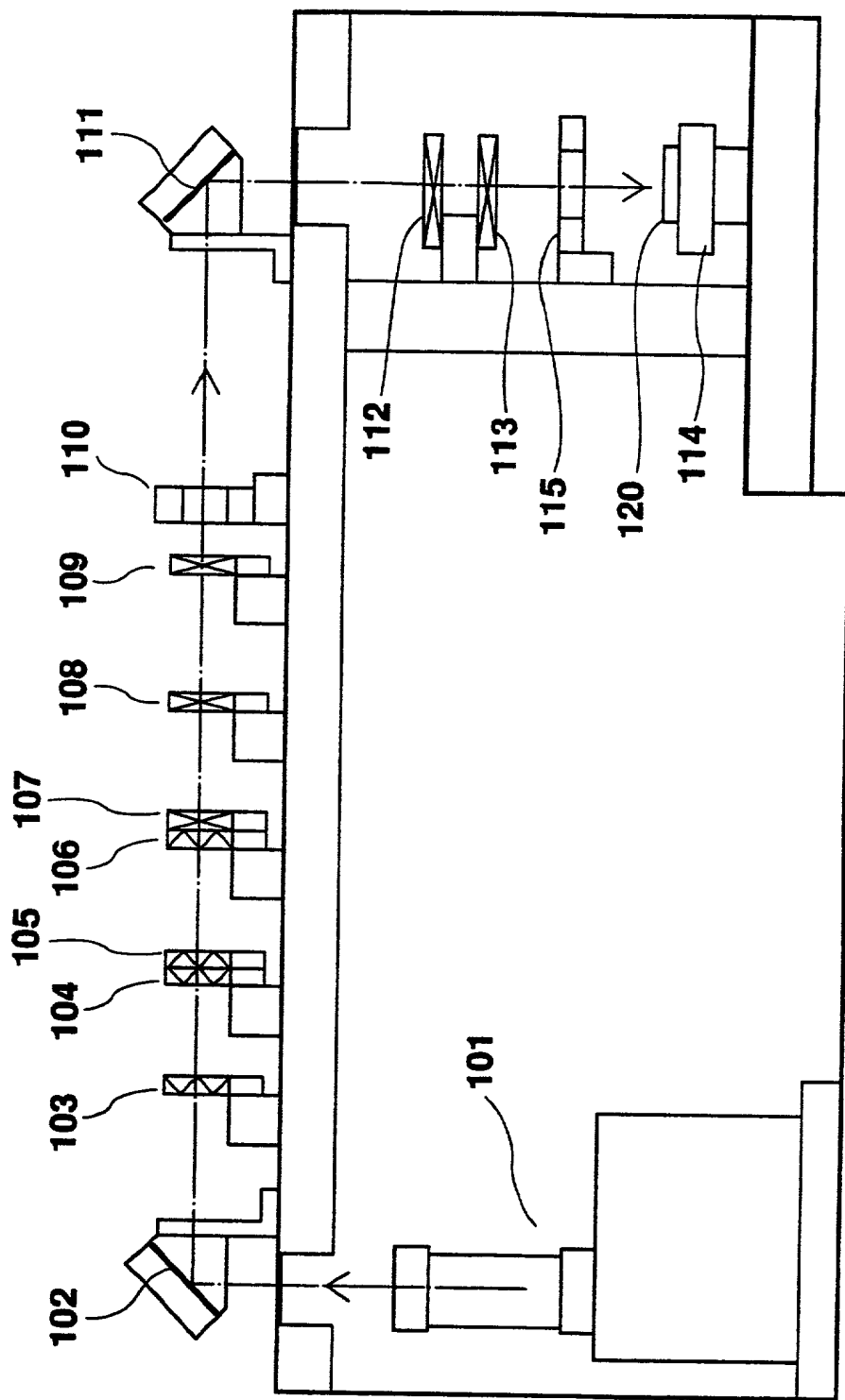


Fig. 19